

Listing of the Claims:

The following is a complete listing of all the claims in the application, with an indication of the status of each:

- 1 1. (Currently Amended) A wavelength division multiplexing transmission
2 system in which a plurality of remote apparatuses are connected to a
3 station apparatus which communicates with and communication is
4 ~~performed among~~ said remote apparatuses using a given plurality of
5 wavelengths ~~and the station apparatus~~, wherein each of said remote
6 apparatuses comprises;
7 wavelength separating means for separating an optical signal
8 including a plurality of wavelengths into separated optical signals;
9 optical receiving means for receiving said separated optical signals
10 from said wavelength separating means and for outputting reception
11 status signal indicating whether or not each of the given plurality of
12 wavelengths used in the transmission system is being received;
13 wavelength control means for determining ~~means that determines~~
14 an available wavelength as a transmission and reception signal on the
15 basis of said reception status signal ~~an optical signal received from said~~
16 ~~station apparatus;~~
17 optical transmitting means for transmitting an optical signal of said
18 available wavelength determined by said wavelength control means.
- 1 2. (Currently Amended) The wavelength division multiplexing
2 transmission system according to claim 1, wherein said wavelength control
3 determining means determines the wavelength of an unreceived optical
4 signal among the wavelength classification used with said transmission
5 ~~system as the available wavelength and sets~~ said available ~~the wavelength~~

6 as a transmission and reception signal and outputs a wavelength control
7 signal for setting said available wavelength to be used in said remote
8 apparatus.

1 3. (Currently Amended) The wavelength division multiplexing
2 transmission system according to claim 1, wherein said wavelength control
3 ~~determining~~ means determines the wavelength of an unreceived a received
4 optical signal among the wavelengths used in the transmission system as
5 said as the available wavelength and sets said available the wavelength as
6 a transmission and reception wavelength to be used in said remote
7 apparatus.

1 4. (Currently Amended) The wavelength division multiplexing
2 transmission system according to claim 1, wherein said wavelength station
3 ~~apparatus comprises optical output~~ control means ~~that~~ determines the a
4 wavelength of a received signal as said available wavelength and sets said
5 available wavelength as a transmission and reception signal to be used in,
6 ~~on the basis of an optical signal received from said remote apparatus.~~

1 5. (Currently Amended) The wavelength division multiplexing
2 transmission system according to claim 1, wherein said station apparatus
3 ~~comprises prevents an~~ optical control means for determining a signal
4 ~~having the same wavelength as an unreceived wavelength among the~~
5 ~~wavelength to be classification used, on the basis of an with said~~
6 ~~transmission system from being outputted and outputting and optical~~
7 ~~signal having the same wavelength as a received from said remote~~
8 apparatus wavelength.

1 6. (Currently Amended) The wavelength division multiplexing

transmission system according to claim 1, wherein said station apparatus
is arranged to prevent wavelength determining means comprises:

~~wavelength filtering means that sequentially separates optical
signals from an optical signal having the same including a plurality of
wavelengths;~~

~~optical receiving means that outputs a reception status signal
indicating whether or not said separated optical signal is being received;~~

~~wavelength as an unreceived control means that determines an
unused wavelength among wavelengths the wavelength classification used
in with said transmission system from being outputted on the basis of said
reception status signal, sets said unused wavelength as a transmission and
reception signal, and outputs an optical a wavelength control signal having
the same wavelength as a received for setting said wavelength; and~~

~~optical transmitting means whose output wavelength is adjusted to
be said unused wavelength in response to said wavelength control signal.~~

7. (Currently Amended) The wavelength division multiplexing
transmission system according to claim 1, wherein said station apparatus
comprises:

wavelength demultiplexing means for demultiplexing that
demultiplexes the wavelength of a received optical signal;

optical receiving means for receiving that receives an optical signal
demultiplexed by said wavelength demultiplexing means;

optical output control means for determining that determines, as a
transmission wavelength, an optical signal having the same wavelength as
that of an optical signal received by said optical receiving means;

optical transmitting means for transmitting that transmits an
optical signal having the transmission wavelength determined by said
optical output control means; and

14 wavelength multiplexing means for multiplexing that multiplexes
15 the wavelength of the optical signal transmitted by said optical
16 transmitting means.

1 8. (Original) The wavelength division multiplexing transmission system
2 according to claim 1, wherein each of said remote apparatuses and said
3 station apparatus are connected with each other through optical branching
4 and coupling means.

1 9. (Original) The wavelength division multiplexing transmission system
2 according to claim 8, wherein said optical branching and coupling means is
3 an optical coupler.

1 10. (Original) The wavelength division multiplexing transmission system
2 according to claim 8, wherein said optical branching and coupling means is
3 wavelength demultiplexing and multiplexing means.

1 11. (Original) The wavelength division multiplexing transmission system
2 according to claim 1, wherein said plurality of remote apparatuses and
3 said station apparatus are connected in a star topology.

1 12. (Original) The wavelength division multiplexing transmission system
2 according to claim 1, wherein said plurality of remote apparatuses and
3 said station apparatus are connected in a tree topology.

1 13. (Currently Amended) A remote apparatus in a wavelength division
2 multiplexing transmission system in which a plurality of remote
3 apparatuses are connected to a station apparatus and communication is
4 performed among said remote apparatuses and the station apparatus
5 using a given plurality of wavelengths, said remote apparatus comprising:

wavelength separating determining means for separating an optical signal including a plurality of wavelengths into separated optical signals;

optical receiving means for generating and outputting a reception status signal indicating whether or not each of the given plurality of wavelengths used in the transmission system is being received; that determines

wavelength control determining means for determining that determines an available wavelength as a transmission and reception signal on the basis of said reception status an optical signal; and received from said station apparatus

optical transmitting means for transmitting an optical signal of said available wavelength determined by said wavelength control means.

14. (Currently Amended) The remote apparatus according to claim 13, wherein said wavelength control determining means sets said available determines the wavelength of an unreceived optical signal among the wavelength as a classification used with said transmission and reception signals and generates and outputs a wavelength control signal for setting said system as the available wavelength and sets the wavelength as a transmission and reception wavelength.

15. (Currently Amended) The remote apparatus according to claim 13, wherein said wavelength control determining means determines the wavelength of an unreceived a received optical signal among the wavelengths used in the transmission system as said the available wavelength and sets said available the wavelength as a transmission and reception wavelength.

16. (Currently Amended) The remote apparatus according to claim 13, wherein said wavelength control determining means comprises:

3 determines the

4 wavelength ~~separating means that sequentially separates optical~~
5 ~~signals from an optical signal including a plurality of wavelengths;~~

6 ~~optical receiving means that outputs a reception status signal~~
7 ~~indicating whether or not said separated of a received optical signal as said~~
8 ~~available is being received;~~

9 ~~wavelength control means that determines an unused wavelength~~
10 ~~among the wavelength and classification used with said transmission~~
11 ~~system on the basis of said reception status signal; sets said available~~
12 ~~unused wavelength as a transmission and reception signal; and outputs a~~
13 ~~wavelength control signal for setting said wavelength; and~~

14 ~~optical transmitting means whose output wavelength is adjusted to~~
15 ~~be said unused wavelength in response to said wavelength control signal.~~

17 -19. (Canceled).

1 20. (Currently Amended) A method for adding a remote apparatus to a
2 wavelength division multiplexing transmission system in which a plurality
3 of remote apparatuses are connected to the station apparatus and
4 communication is performed among said remote apparatuses and the
5 station apparatus using a given plurality of wavelengths, said method
6 comprising:

7 separating an optical signal including a plurality of wavelengths
8 into separated optical signals;

9 generating and outputting a reception status signal indicating
10 whether or not wavelengths used in the transmission system are being
11 received; wherein

12 determining an available wavelength is determined on the basis of
13 said reception status an optical signal; and

14 transmitting an optical signal of said available ~~received at a remote~~
15 ~~apparatus to be added and the wavelength is set as a transmission and~~
16 ~~reception wavelength to be used in said remote apparatus to be added.~~

1 21. (New) The method according claim 20, further comprising:
2 generating and outputting, based on a result of said determining, a
3 wavelength control signal for setting said available wavelength; and
4 setting, based on said wavelength control signal, said available
5 wavelength as a transmission and reception signal.